

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

MEMORANDUM

July 3, 2013

TO: Phillip Fielder, P.E., Permits and Engineering Group Manager

FROM: Justin Valentine, New Source Permit Section

SUBJECT: Evaluation of Permit Application No. **2010-060-TVR2 (M-1)**
XTO Energy, Inc.
Hewitt Unit Waterflood Station
Latitude: 34.201 Longitude: -97.406
Section 21, Township 4S, Range 2W, Carter County, Oklahoma.
Directions: From Ardmore, OK, go 15 miles west on US Hwy 70 then turn north on Dillard Road and travel 1.9 miles to facility.

SECTION I. INTRODUCTION

XTO Energy, Inc., has requested an administrative amendment for Permit no. 2010-060-TVR2 to reflect a change in company ownership from Exxon Mobil Corporation to XTO. Only Company name and Permit number change between the versions. The expiration date of this permit is October 7, 2016.

SECTION II. FACILITY DESCRIPTION

The facility gathers produced liquids and natural gas from the Hewitt Unit and re-injects the saltwater to enhance oil recovery (SIC 1311/NAICS 211111). Production rates are approximately 1,800 barrels of oil per day, 130,000 barrels of saltwater per day, and 1.5 MMSCFD of natural gas.

The inlet oil/saltwater flows to a pressurized inlet separator where the saltwater, saturated oil, and a small amount of wet oil are separated. The saturated oil flows to a heater treater where entrained gas is separated from the oil. Separated gas is sent to the inlet gas stream and oil is sent to a 10,000-barrel good oil tank. Wet oil from the inlet separator is sent to a 10,000-barrel wet oil tank. The wet oil is then returned to the inlet oil/saltwater stream. Crude oil from the good oil tank is pumped to a sales pipeline. The system is designed with an electric-driven vapor recovery unit (VRU) to capture flash gas from the wet oil and good oil tanks. Currently, the VRU is not in operation; therefore, the tank flash gas is being vented to atmosphere. When the VRU is operational the storage tanks gas is captured and routed to the electric field gas compressor and then to the sales gas line. The heater, wet oil and good oil tanks are all "grandfathered" sources.

Saltwater from the inlet separator flows to a 10,000-barrel produced water tank. This tank is not vented, but any overflow goes to the good oil tank. The saltwater is then boosted in pressure by

six pumps and leaves the facility by pipeline to the field injection wells. Six (6) 1,100-hp White Superior 8GT825 engines drive the injection pumps. These engines were all installed before 1971 and are “grandfathered” sources.

Inlet field gas flows to an inlet gas/liquid separator. The gas goes to a sales pipeline and hydrocarbon liquids are sent to the wet oil tank.

Oil/water from the station drain system flows to a 2,500-barrel open top skim tank for oil and saltwater separation. The saltwater is sent to disposal wells and skimmed oil is trucked off-site.

SECTION III. EQUIPMENT

Emission units have been arranged into Emission Unit Groups (EUGs) as follows.

EUG 1. Engines

EU ID	Point	Make/Model	HP	Serial #	Installed Date
Eng-1	P-Stack-1	White Superior 8GT825	1,100	19758	Removed ⁽¹⁾
Eng-2	P-Stack-2	White Superior 8GT825	1,100	19644	Before 1971 ⁽²⁾
Eng-3	P-Stack-3	White Superior 8GT825	1,100	19646	Before 1971 ⁽²⁾
Eng-4	P-Stack-4	White Superior 8GT825	1,100	20107	Before 1971
Eng-5	P-Stack-5	White Superior 8GT825	1,100	19643	Before 1971
Eng-6	P-Stack-6	White Superior 8GT825	1,100	19642	Before 1971
Eng-7	P-Stack-7	White Superior 8GT825	1,100	19641	Before 1971

⁽¹⁾ Permanently removed from facility.

⁽²⁾ Presently out of service, but may be used in the future.

EUG 2. Storage Tanks

EU ID	Point	Capacity, Barrels	Material Stored	Date Manufactured
Tankwet	P-Tkvent1	10,000	Wet crude oil	1968
Tankgood	P-Tkvent1	10,000	Good crude oil	1968
Tankskim	P-Tkvent2	2,500	Skim crude oil	1993
Tanklube	P-Tkvent3	100	Lube oil	1968

Note: The 10,000-barrel produced water tank located at the facility is not vented and not considered an emission source.

EUG 3. Fugitive Components

EU ID	Components	Number of Components ⁽¹⁾	
		Gas	Light Liquid
E-Fugitives	Valves	125	86
E-Fugitives	Flanges	300	334

⁽¹⁾ Estimated component count.

EUG 4. Heater

EU ID	Point	Description	MMBtu/hr	Serial #	Date Manufactured
Heater	P-Stack8	Heater treater	4.0	S1050-425	1968

SECTION IV. EMISSIONS

All emissions estimates are based on continuous operation.

EUG 1. Engines

The internal combustion engines have emissions of HAP, the most significant being formaldehyde. Uncontrolled emissions of formaldehyde were calculated using emission factors taken from AP-42 (7/00) Table 3.2-3, as shown in Table 1 below. The total formaldehyde emissions from the six (6) engines are estimated as lb/hr and TPY, as shown in Table 2. Table 6 shows the total facility-wide emissions of criteria pollutants.

Table 1: Emission Factors

Engine Make/Model	Type	Fuel Consumption	Emission Factor, lb/MMBtu			
		BTU/hp-hr	NO _x	CO	VOC	Formaldehyde
White Superior 8GT825	4SRB	8,300	2.27	3.51	0.03	0.0205

Table 2: Engine Estimated Emissions

EU ID	NO _x		CO		VOC		Formaldehyde	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Eng-2	20.7	90.7	32.0	140	0.3	1.3	0.19	0.83
Eng-3	20.7	90.7	32.0	140	0.3	1.3	0.19	0.83
Eng-4	20.7	90.7	32.0	140	0.3	1.3	0.19	0.83
Eng-5	20.7	90.7	32.0	140	0.3	1.3	0.19	0.83
Eng-6	20.7	90.7	32.0	140	0.3	1.3	0.19	0.83
Eng-7	20.7	90.7	32.0	140	0.3	1.3	0.19	0.83
Total	124	544	192	840	1.8	7.8	1.1	5.0

EUG 2. Storage Tanks

Estimated potential VOC emissions from the wet oil and good oil tanks are based on TANKS 4.0 calculations for working and breathing losses and Vasquez-Beggs equation for flash losses. Controlled VOC emissions (normal operation) are based on a vapor control efficiency of 98% for the VRU. Currently; the VRU is not in operation and no recovery efficiency is claimed. When the VRU is operational, the storage tanks gas is captured and routed to the electric field gas compressor and then to the sales gas line. Tank emissions are currently calculated and reported as uncontrolled. The wet oil tank emissions are based on a crude oil throughput of 120 BPD. The good oil tank emissions are based on a crude oil throughput of 1,800 BPD. Emissions from the lube oil tank, the open top skim oil tank, and any truck loading of skimmed oil are negligible.

Table 3: Tanks Estimated Emissions

EU ID	Capacity (barrels)	Material Stored	Potential		Controlled	
			lb/hr	TPY	lb/hr	TPY
Tankwet	10,000	Crude Oil	4.5	19.9	0.09	0.4

Tankgood	10,000	Crude Oil	22.9	100.2	0.46	2.0
Total			27.4	120.1	0.55	2.4

EUG 3. Fugitive Components

Fugitive VOC emissions from equipment components are based on the EPA document, “Protocol for Equipment Leak Emission Estimates” (EPA-453/R-95-017), 50-wt% of VOC in gas streams, and 30-wt% VOC in hydrocarbon liquid streams.

Table 4: Fugitive Counts and Emission Factors

Components	Emission Factor (lb/hr-source)		Component Count		VOC Emissions	
	Gas	LL	Gas	LL	lb/hr	TPY
Valves	0.00992	0.00992	125	86	0.762	3.34
Flanges	0.00086	0.00086	300	334	0.153	0.67
Total			425	420	0.92	4.01

EUG 4. Heater

Estimated emissions from the heater are based on emission factors for natural gas combustion in AP-42 (7/98), Table 1.4-1, a fired duty of 4.0 MMBtu/hr, and a fuel gas HHV of about 1,000 Btu/scf.

Table 5: Heater Estimated Emissions

EU ID	NO _x		CO		VOC	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Heater	0.40	1.8	0.34	1.5	0.02	0.09

Facility wide Emissions

The total estimated emissions from the facility are listed in the following table.

Table 6: Facility Wide Air Emissions

Equipment	EU ID	NO _x		CO		VOC	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
White Superior 8GT825	Eng-2	20.7	90.7	32.0	140	0.3	1.3
White Superior 8GT825	Eng-3	20.7	90.7	32.0	140	0.3	1.3
White Superior 8GT825	Eng-4	20.7	90.7	32.0	140	0.3	1.3
White Superior 8GT825	Eng-5	20.7	90.7	32.0	140	0.3	1.3
White Superior 8GT825	Eng-6	20.7	90.7	32.0	140	0.3	1.3
White Superior 8GT825	Eng-7	20.7	90.7	32.0	140	0.3	1.3
Storage Tanks ⁽¹⁾	E-Tanks	-	-	-	-	0.55	2.4
Fugitive Components	E-Fugitives	-	-	-	-	0.92	4.01
Heater	E-Heater	0.40	1.8	0.34	1.5	0.02	0.09
Total		125.0	546.0	192.0	842.0	3.3	14.3

- (1) Normal operation with VRU in service.

SECTION V. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the previous application and listed in OAC 252:100-8, Appendix I, are listed below. Record keeping for activities indicated with “*” is listed in the permit Specific Conditions.

1. * Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. There is one lube oil tank.
2. * Activities having the potential to emit no more than 5.0 TPY of any criteria pollutant. The open top skim oil tank and any truck loading of skimmed oil are in this category.

SECTION VI. OKLAHOMA AIR QUALITY RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]
This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the “Federal Regulations” section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration of Air Contaminant Sources) [Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories have been submitted and fees paid for the past years.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the “Insignificant Activities” or “Trivial Activities” thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

- 5 TPY of any one criteria pollutant; and
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule.

All of the equipment at this facility is “grandfathered” and not subject to emission limits, except for the skim oil tank, which has insignificant emissions. Emission estimates are from the TV renewal applications and/or the original Part 70 permit.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]

Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter From Fuel-burning Equipment) [Applicable]

Subchapter 19 specifies a particulate matter (PM) emissions limitation of 0.6 lb/MMBtu from existing fuel burning equipment with a rated heat input of 10 MMBtu/hr or less. AP-42 (7/00) Table 3.2-3 lists the total PM emissions from 4-stroke rich burn natural gas-fired engines as 0.0095 lb/MMBtu. AP-42 (7/98) Table 1.4-2 lists total PM emissions as 0.0076 lb/MMBtu for natural gas combustion. The permit requires the use of natural gas for all fuel-burning equipment to ensure compliance with Subchapter 19.

This subchapter also limits emissions of PM from industrial processes. Per AP-42 factors, there are no significant PM emissions from any other industrial activities at this facility.

OAC 252:100-25 (Visible Emissions and Particulate Matter) [Applicable]

No discharge of greater than 20% opacity is allowed except for short-term occurrences, which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning natural gas there is little possibility of exceeding the opacity standards.

OAC 252:100-29 (Fugitive Dust) [Applicable]

No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Under normal operating conditions, this facility will not cause a problem in this area; therefore, it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels, the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,020 Btu/scf, this limit corresponds to fuel sulfur content of 1,227 ppmv. The engines at this facility were constructed prior to July 1, 1972 and are not subject to these requirements.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]

This subchapter limits NO_x emissions from new fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NO_x per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]

None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]

Part 3 requires storage vessels constructed after December 28, 1974, with a capacity of 40,000 gallons or more and storing a VOC with a vapor pressure greater than or equal to 1.5 psia to be a pressure vessel or to be equipped with an external floating roof, or a fixed roof with an internal floating cover, or to be equipped with a vapor recovery system capable of collecting 85% of the uncontrolled VOC. The 2,500-barrel skim tank is equipped with a submerged fill pipe. The two (2) 10,000-barrel oil tanks are exempt from this requirement based on construction dates; however, the tanks are equipped with a vapor-gathering system capable of collecting uncontrolled VOCs that would otherwise be emitted to the atmosphere.

Part 3 requires VOC loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. The skimmed oil loading operation is not the type of loading operation affected by Part 3.

Part 5 limits the VOC content of coatings from any coating line or other coating operation. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment. The VOC emission is less than 100 pound per day and so is exempt.

Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. Temperature and available air must be sufficient to provide essentially complete combustion. The engines at this location are subject to this requirement.

Part 7 requires all effluent water separator openings, which receive water containing more than 200 gallons per day of any VOC, to be sealed or the separator to be equipped with an external floating roof or a fixed roof with an internal floating roof or a vapor recovery system.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a

modification is approved by the Director. Since no AOC has been designated, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping)

[Applicable]

This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests.

Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

The following Oklahoma Air Pollution Control Rules are not applicable to this facility:

OAC 252:100-11	Alternative Emissions Reduction	Not requested
OAC 252:100-15	Mobile Sources	Not in source category
OAC 252:100-17	Incinerators	Not type of emission unit
OAC 252:100-23	Cotton Gins	Not type of emission unit
OAC 252:100-24	Grain Elevators	Not in source category
OAC 252:100-39	Nonattainment Areas	Not in area category
OAC 252:100-47	Municipal Solid Waste Landfills	Not in source category

SECTION VII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52

[Not Applicable]

Total emissions for NO_x and CO are greater than the major source threshold level of 250 TPY. Any future emission increases must be evaluated for PSD if they exceed a significance level (100 TPY CO, 40 TPY NO_x, 40 TPY VOC, 40 TPY SO₂, 25 TPY PM, 15 TPY PM₁₀, 10 TPY H₂S).

NSPS, 40 CFR Part 60

[Not Applicable]

Subpart K, Ka, Kb, VOL Storage Vessels. All storage tanks at this site were constructed prior to the effective dates of these Subparts K, Ka, and Kb, except for the 2,500-barrel open top skim tank. This tank is exempt as it handles hydrocarbon liquids prior to custody transfer.

Subpart GG, Stationary Gas Turbines. This subpart sets standards for stationary gas turbines; however, the compressors here are powered by reciprocating engines.

Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry. The equipment is not in a SOCM plant.

Subpart KKK, Equipment Leaks of VOC from Onshore Natural Gas Processing Plants constructed, reconstructed, or modified after January 20, 1984. This subpart sets standards for natural gas processing plants, which are defined as any site engaged in the extraction of natural gas liquids from field gas, fractionation of natural gas liquids, or both. The facility was constructed prior to publication of this subpart and does not engage in natural gas processing.

Subpart LLL, Onshore Natural Gas Processing, sets standards for natural gas sweetening units, and sweetening units followed by a sulfur recovery unit, which commenced construction or modification after January 20, 1984. There is no natural gas sweetening operation at this site.

Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI-ICE). This subpart was published in the Federal Register on January 18, 2008. It promulgates emission standards for new SI engines ordered after June 12, 2006, that are manufactured after certain dates, and for SI engines modified or reconstructed after June 12, 2006. The specific emission standards (either in g/hp-hr or as a concentration limit) vary based on engine class, engine power rating, lean-burn or rich-burn, fuel type, duty (emergency or non-emergency), and manufacture date. Engine manufacturers are required to certify certain engines to meet the emission standards and may voluntarily certify other engines. An initial notification is required only for owners and operators of engines greater than 500 HP that are non-certified. Emergency engines will be required to be equipped with a non-resettable hour meter and are limited to 100 hours per year of operation excluding use in an emergency (the length of operation and the reason the engine was in operation must be recorded). The engines in this permit were manufactured prior to June 12, 2006, and have not been modified; thus, they are not subject to this subpart.

NESHAP, 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, only affects process streams that contain more than 10% benzene by weight. All process streams at this facility are below this threshold.

NESHAP, 40 CFR 63

[Subpart is ZZZZ Applicable]

Subpart HH, Oil and Natural Gas Production Facilities. This subpart applies to triethylene glycol (TEG) dehydration units at area sources and affected emission points that are located at facilities that are major sources of HAP emissions and either process, upgrade, or store hydrocarbons prior to the point of custody transfer or prior to which the natural gas enters the natural gas transmission and storage source category. For the purposes of this subpart, natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, when present. If no natural gas processing plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer. This facility is considered an area source of HAP.

Subpart HHH, affects Natural Gas Transmission and Storage Facilities, which are a major source of HAPs. This facility is not a major source of HAPs.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. Owners and operators of the following new or reconstructed RICE must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines):

- 1) Stationary RICE located at an area source;
- 2) The following Stationary RICE located at a major source of HAP emissions:
 - i) 2SLB and 4SRB stationary RICE with a site rating of ≤ 500 brake HP;
 - ii) 4SLB stationary RICE with a site rating of < 250 brake HP;
 - iii) Stationary RICE with a site rating of ≤ 500 brake HP which combust landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis;
 - iv) Emergency or limited use stationary RICE with a site rating of ≤ 500 brake HP; and
 - v) CI stationary RICE with a site rating of ≤ 500 brake HP.

No further requirements apply for engines subject to NSPS under this part. Based on emission calculations, this facility is a minor source of HAP. A stationary RICE located at an area source of HAP emissions is new if construction commenced on or after June 12, 2006. The engines at this facility were constructed prior to June 12, 2006, have not been reconstructed, and are considered existing engines. A summary of the requirements for the existing SI RICE located at this facility are shown below.

Engine Category	Normal Operation ¹ @ 15% O ₂
Existing Non-Emergency, Non-Black Start, 4SRB HP > 500-hp	2.7 ppmvd H ₂ CO or 76% H ₂ CO reduction.

¹ During Startup - Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

The 4SRB engines at this facility will be expected to comply with the H₂CO emission limits by the initial compliance date of October 19, 2013. All applicable requirements have been incorporated into the permit.

CAM, 40 CFR Part 64

[Not Applicable]

Compliance Assurance Monitoring (CAM) as published in the Federal Register on October 22, 1997, applies to any pollutant specific emission unit at a major source that is required to obtain a Title V permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY of any criteria pollutant, 10 TPY of any HAP, or 25 TPY of HAPs.

None of the engines at this facility use a control device to achieve compliance with the applicable emission limits or standards for any regulated air pollutant.

Chemical Accident Prevention Provisions, 40 CFR Part 68

[Not Applicable]

The definition of a stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this part. The definition of a stationary source also does not include naturally occurring hydrocarbon reservoirs. Naturally occurring hydrocarbon mixtures, prior to entry into

a natural gas processing plant or a petroleum refining process unit, including: condensate, crude oil, field gas, and produced water, are exempt for the purpose of determining whether more than a threshold quantity of a regulated substance is present at the stationary source. This facility does not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). More information on this federal program is available on the web page: www.epa.gov/ceppo.

Stratospheric Ozone Protection, 40 CFR Part 82

[Subpart A and F Applicable]

These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

This facility does not utilize any Class I & II substances.

Subpart F requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

The Standard Conditions of the permit address the requirements specified at §82.156 for persons opening appliances for maintenance, service, repair, or disposal; §82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; §82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; §82.166 for recordkeeping; § 82.158 for leak repair requirements; and §82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

SECTION VIII. COMPLIANCE

Tier Classification and Public Review

This application has been determined to be a Tier II based on the request for renewal of a Part 70 permit. The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the real property. Information on all permits is available for review by the public in the Air Quality Section of DEQ Web Page: <http://www.deq.state.ok.us>.

Public Review

The applicant published the "Notice of Filing a Tier II Application" in the *Wilson Post-Democrat*, a weekly newspaper in Carter County, on May 6, 2010. The notice stated that the application was available for public review at the Wilson City Hall located at 122 East Main in Wilson, Oklahoma, or at the Air Quality Division's Main Office in Oklahoma City, Oklahoma. A draft of this permit was made available for public review for a period of 30 days as stated in another newspaper announcement and was available on the AQD Section of the DEQ Web site. This facility is located within 50 miles of the Oklahoma-Texas border. Notice of the availability of the draft permit was provided to the state of Texas. No comments were received from the public.

EPA Review

No comments were received from EPA during the 45-day review period.

Inspection

A full compliance evaluation was conducted on June 3, 2010 by Jeffery Dye of the Oklahoma Department of Environmental Quality Air Quality Division. Also present for the inspection was Ernest Franklin, Field Foreman, and Jim McLain, Operations Compliance Technician, both representing Exxon Mobil. The facility was operating as described in the permit application and supplemental materials. Operational records, calibration, repair and test data are maintained on-site.

Fees Paid

A Part 70 permit renewal fee of \$1,000 has been paid.

SECTION IV. SUMMARY

The facility was constructed and is operating as described in the permit applications. There are no active Air Quality compliance or enforcement issues that would affect the issuance of this permit. Issuance of the operating permit is recommended.

**PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS**

XTO Energy, Inc.

Hewitt Unit Waterflood Station

Permit Number 2010-060-TVR2 (M-1)

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on January 22, 2010, and supplemental materials received thereafter. The Evaluation Memorandum dated July 3, 2013, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Points of emissions and emissions limitations for each point: [OAC 252:100-8-6(a)]

EUG 1: The engines are “grandfathered” (constructed prior to any applicable rule) and are limited to the existing equipment as is.

EU ID	Point	Make/Model	HP	Serial #	Installed Date
Eng-2	P-Stack-2	White Superior 8GT825	1,100	19644	Before 1971
Eng-3	P-Stack-3	White Superior 8GT825	1,100	19646	Before 1971
Eng-4	P-Stack-4	White Superior 8GT825	1,100	20107	Before 1971
Eng-5	P-Stack-5	White Superior 8GT825	1,100	19643	Before 1971
Eng-6	P-Stack-6	White Superior 8GT825	1,100	19642	Before 1971
Eng-7	P-Stack-7	White Superior 8GT825	1,100	19641	Before 1971

EUG 2: All but one of the storage tanks are “grandfathered” (constructed prior to any applicable rule). There are no emissions limits applied to these units under Title V, but they are limited to the existing equipment as is. The 2,500-barrel skim tank, Tankskim, is not “grandfathered”, but emissions are insignificant and no emissions limit applies.

EU ID	Point	Capacity, barrel	Material Stored	Date Manufactured
Tankwet	P-Tkvent1	10,000	Wet crude oil	1968
Tankgood	P-Tkvent1	10,000	Good crude oil	1968
Tankskim	P-Tkvent2	2,500	Skim crude oil	1993
Tanklube	P-Tkvent3	100	Lube oil	1968

Note: A 10,000-barrel produced water tank is not vented and not considered an emission source.

EUG 3: Fugitive emissions are insignificant and do not have specific limits.

EU ID	Components	Components Count ⁽¹⁾	
		Gas	Light liquid
E-Fugitives	Valves	125	86
E-Fugitives	Flanges	300	334

⁽¹⁾ Estimate only, not a limit.

EUG 4: The heater is “grandfathered” (constructed prior to any applicable rule). There are no emissions limits applied to this unit under Title V, but it is limited to the existing equipment as is.

EU ID	Point	Description	MMBtu/hr	Serial #	Date Manufactured
Heater	P-Stack8	Heater treater	4.0	S1050-425	1968

2. The fuel-burning equipment shall be fired with pipeline grade natural gas or other gaseous fuel with a sulfur content less than 343 ppmv. Compliance can be shown by the following methods: for pipeline grade natural gas, a current gas company bill; for other gaseous fuel, a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods. Compliance shall be demonstrated at least once annually. [OAC 252:100-31]
3. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6 (a)]
4. Each engine at the facility shall have a permanent identification plate attached, which shows the make, model number, and serial number. [OAC 252:100-43]
5. The following records shall be maintained on-site or at a local field office to verify Insignificant Activities. No recordkeeping is required for those operations that qualify as Trivial Activities. [OAC 252:100-8-6 (a)(3)(B)]
 - a. For crude oil and condensate storage tanks with a capacity of less than or equal to 420,000 gallons that store crude oil and condensate prior to custody transfer: records of capacity of the tanks and the amount of throughput (annual).
 - b. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: records of capacity of the tanks and contents.
 - c. For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: the type of activity and the amount of emissions from that activity (annual).
6. No later than 30 days after each anniversary date of the issuance of the initial Title V operating permit (October 30, 1998), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]

7. The owner/operator shall comply with all applicable requirements of the NESHAP: Reciprocating Internal Combustion Engines, Subpart ZZZZ, for each affected facility including but not limited to: [40 CFR 63.6580 through 63.6675]

What This Subpart Covers

- a. § 63.6580 What is the purpose of subpart ZZZZ?
- b. § 63.6585 Am I subject to this subpart?
- c. § 63.6590 What parts of my plant does this subpart cover?
- d. § 63.6595 When do I have to comply with this subpart?

Emission and Operating Limitations

- e. § 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

General Compliance Requirements

- f. § 63.6605 What are my general requirements for complying with this subpart?

Testing and Initial Compliance Requirements

- g. § 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?
- h. § 63.6615 When must I conduct subsequent performance tests?
- i. § 63.6620 What performance tests and other procedures must I use?
- j. § 63.6625 What are my monitoring, installation, operation, and maintenance requirements?
- k. § 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

Continuous Compliance Requirements

- l. § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?
- m. § 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

Notifications, Reports, and Records

- n. § 63.6645 What notifications must I submit and when?
- o. § 63.6650 What reports must I submit and when?
- p. § 63.6655 What records must I keep?
- q. § 63.6660 In what form and how long must I keep my records?

Other Requirements and Information

- r. § 63.6665 What parts of the General Provisions apply to me?
- s. § 63.6670 Who implements and enforces this subpart?
- t. § 63.6675 What definitions apply to this subpart?

8. The permittee shall maintain records as specified in Specific Condition 1, 2, 5, and 7 including but not limited to those listed below. These records shall be maintained on-site for at least five years after the date of recording and shall be provided to regulatory personnel upon request.

[OAC 252:100-43]

- a. For the fuel(s) burned, the appropriate document(s) as described in Specific Condition 2, updated annually.
 - b. The permittee shall keep operation and maintenance (O&M) records for the “grandfathered” engines.
 - c. Records as required by NESHAP Subpart ZZZZ.
9. This permit supersedes all other Air Quality permits for this facility, which are now null and void.

**MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(July 21, 2009)**

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.

[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [OAC 252:100-8-6(a)(7)(B)]

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements. [OAC 252:100-8-6(a)(3)(C)(iv)]

C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F. [OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

B. Records of required monitoring shall include:

- (1) the date, place and time of sampling or measurement;
- (2) the date or dates analyses were performed;
- (3) the company or entity which performed the analyses;
- (4) the analytical techniques or methods used;
- (5) the results of such analyses; and
- (6) the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report.

[OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions.

[OAC 252:100-8-6(a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act.

[OAC 252:100-43]

F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-

8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants ("NESHAPs") under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

[OAC 252:100-8-6(c)(4)]

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer's instructions and in accordance with a protocol meeting the requirements of the "AQD Portable Analyzer Guidance" document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM₁₀). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification. [OAC 252:100-8-6(c)(6)]

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit. [OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit. [OAC 252:100-8-6(d)(2)]

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

- A. This permit does not convey any property rights of any sort, or any exclusive privilege.
[OAC 252:100-8-6(a)(7)(D)]
- B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued.
[OAC 252:100-8-6(c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

- A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking, reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.
[OAC 252:100-8-6(a)(7)(E)]
- B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.
[OAC 252:100-8-6(a)(7)(E)]
- C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.
[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

- A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.
[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]
- B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances: [OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]
- (1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.

- (2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
- (4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d). [OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a "grandfathered source," as defined under AQD rules. Such changes may require a permit modification.

[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited. [OAC 252:100-8-6(c)(6)]

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(18) for confidential information submitted to or obtained by the DEQ under this section):

- (1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance.

[OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

[OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that:

[OAC 252:100-8-6 (e)(2)]

- (1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
- (2) the permitted facility was at the time being properly operated;
- (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.

[OAC 252:100-8-6(e)(3)]

F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.

[OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date.

[OAC 252:100-8-6(a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

- (1) 5 tons per year of any one criteria pollutant.
- (2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.

[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.

[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating.

[OAC 252:100-8-6(a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

- (1) result in no net emissions increases,
- (2) are not modifications under any provision of Title I of the federal Clean Air Act, and
- (3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The

permit shield provided by this permit does not apply to any change made pursuant to this paragraph. [OAC 252:100-8-6(f)(2)]

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]
 - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
 - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
 - (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
 - (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
- (5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- (6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]

- (7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances: [40 CFR 82, Subpart A]

- (1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
- (2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
- (3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

- (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
- (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
- (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
- (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
- (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source's Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R. § 70.8(a) and (c).
- (5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
- (6) The DEQ complies with 40 C.F.R. § 70.8(d).
- (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
- (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
- (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
- (10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[OAC 252:100-43-6]

XTO Energy, Inc.
Attn: Mr. Doug Agee
810 Houston St.
Fort Worth, TX 76102-6298

RE: Operating Permit **No. 2010-060-TVR2 (M-1)**
Hewitt Unit Waterflood Station
Section 21, Township 4S, Range 2W
Carter County, Oklahoma

Dear Mr. Agee:

Enclosed is the permit authorizing operation of the referenced facility above. Please note that this permit is issued subject to standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

Thank you for your cooperation in this matter. If we may be of further service, or you have any questions about this permit, please contact me at (405) 702-4196

Sincerely,

Justin Valentine
New Source Permit Section
AIR QUALITY DIVISION

Enclosure



PART 70 PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 NORTH ROBINSON, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 2010-060-TVR2 (M-1)

XTO Energy, Inc.,
having complied with the requirements of the law, is hereby granted permission to
operate their Hewitt Unit Waterflood Station in Section 21, Township 4S, Range 2W,
near Wilson, Carter County, Oklahoma, subject to the Standard Conditions dated
July 21, 2009, and Specific Conditions, both of which are attached.

This permit shall expire on 10-7-2016, except as authorized under Section VIII of the Standard Conditions.

Permits and Engineering Group Manager

Date